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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,972	11/30/2000	Rich Rogers	COMP:0084	5616

7590 06/01/2005

Intellectual Property Administration
Legal Department M/S 35
PO Box 272400
Ft. Collins, CO 80527-2400

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,972

Applicant(s)

ROGERS ET AL.

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed on 12/28/04 have been fully considered but they are not persuasive.

Applicant's arguments filed on 12/28/04 have been fully considered but they are not persuasive. Applicant argues that the cited references, Powers et al. (USPN 6460103), Acevedo (USPN 5818361) and Comer (USPN 6081856) alone or in combination do not teach a display configurable to display a plurality of icons and keys corresponding to the plurality of icons. However, as shown in the art rejection below, Acevedo teaches a display-keyboard (10), which includes a plurality of LCDs (20) or LEDs (20), with each display positioned adjacent to an associated key such that among other things icons abbreviations are utilized in the display. See col. 4, lines 1-7, 61-64, Fig. 2 and Fig. 4., Acevedo teaches a display being positioned adjacent to an associated key and indicates a template housing 16 being positioned between the upper edge of the keyboard and a top row of keys (last paragraph of col. 4). Further, Both the teaching and inspection of Fig. 2 do not indicate a template (16) being separated from a keyboard. In response to applicant's argument that the cited references not teaching a display configurable to display a plurality of icons, Acevedo discloses that each display key has a liquid crystal display, light emitting diode display, or any future state of the art display for depicting alphanumeric characters, symbols, special characters, pictures, icons abbreviations, short explanations, and indicia. See col. 4, lines 1-25. The examiner asserts that a word "configurable" as used in the claims could be interpreted broadly.

Applicant argues the cited references alone or in combination do not teach a plurality of key with respect to launching one of a software program and a Uniform Resource Locator.

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However, Acevedo indicates the well known by citing an electronic keyboard template with software application programs responsive to command signals transmitted by designated function keys on a computer keyboard including an LCD display (col. 1, lines 19-32). Powers teaches a series of dedicated keys being provided in a designated rapid Internet access array 70. Powers teaches these keys permit the user to launch Internet access application software, log on to the Internet, and to navigate directly to specific Internet sites (col. 5, lines 34-45). Hence it would have been obvious for one of ordinary skill in the art to utilize Powers' in Internet launching keys inside Acevedo's keyboard-display system.

Applicant further argues that the cited references alone on in combination do not teach selecting an icon from a system monitor and transmitting the icon from the monitor to a keyboard, and displaying an icon on the keyboard. However, Acevedo teaches a standard control circuitry 13 of the keyboard and is adapted to depict via the display keys data relevant to the function of the key during a software application. Acevedo further teaches that display software is utilized to allow the computer to determine which application is currently being employed and further automatically configure the display keys accordingly. See col. 4, lines 25-32 and fig. 5 (13, 15). One of ordinary skill in the art would have ascertained that one would utilize Acevedo's display software along with control circuit (13) and computer (15) for the manner by which data is sent to keyboard display. In addition as shown in the art rejection below, Rosenberg teaches a haptic keyboard device (12) and host computer as shown in Fig. 6 in which a microprocessor (210) can receive signals from sensor (212) and provide signals to actuator (66) in accordance with instructions provided by host computer (14) over bus 20.

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In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Both Powers and Acevedo teach about keyboards, and one of ordinary skill in the art would have looked toward Acevedo for the manner by which keys are arranged. Both Powers and Rosenberg teach about keyboards, and one of ordinary skill would have looked toward Rosenberg for the manner by which a keyboard interacts in the computer system.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powers et al. (USPN 6460103) in view of Acevedo (USPN 5818361) and Rosenberg (USPN 6693626).

Regarding claims 1, 6, 15 and 23, Powers teaches a keyboard (14) including features of the keyboard for rapidly responding to routine software requests. See col. 5, lines 9-11. Powers teaches at least one application launch Key (68) actuation of which causes a high level interrupt for opening or launching a specific user-configurable software applications. Powers also teaches that each of the keys carries an icon and further teaches rapid response keys (82, 84, 86, 88), which are additional special keys with specific purposes responding to a software request according to their assigned functions. See col. 6, lines 12-26, Fig 3A and Fig 4. In addition, Powers teaches the keyboard in connection to the computer console, a rapid Internet access array (70) a CPU (10), and a monitor (12). See col. 5, lines 55-57, Fig 2 and Fig 3A. However, Powers does not teach a keyboard including a display configurable to display a plurality of icons. Acevedo on the other hand teaches a display-keyboard (10), which includes a plurality of LCDs (20) or LEDs (20), with each display positioned adjacent to an associated key such that among other things icons abbreviations are utilized in the display. See col. 4, lines 1-7, 61-64, Fig. 2 and Fig. 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Powers' keyboard to adapt Acevedo's keyboard-based multiple LCDs (20). One would have been motivated in view of the suggestion in Acevedo that the LCDs (20) as configured on Fig. 2 are the same as the desired Keyboard-mounted display. The use of LCDs (20) on a keyboard helps a display-keyboard system as taught by Acevedo.

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Powers has been described above. However, Powers does not teach transmitting the icon from the monitor to the keyboard.

Rosenberg on the other hand teaches a haptic keyboard device (12) and host computer as shown in Fig. 6 in which a microprocessor (210) can receive signals from sensor (212) and provide signals to actuator (66) in accordance with instructions provided by host computer (14) over bus 20.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Powers' keyboard system to adapt Rosenberg's host processor (200) along with haptic feedback including the use of sensor (212). One would have been motivated in view of the suggestion in Rosenberg that through the host processor (200) along with haptic feedback as configured in Fig. 6, transmission of the icons from the monitor to the keyboard could equivalently take place. The use of a host processor helps function a haptic feedback keyboard as taught by Rosenberg.

Regarding claims 2, 11, 22 and 30, Powers teaches a circuitry including a CPU connectable to a monitor (12) for displaying graphical information to a user of the system. See col. 4, lines 2-3.

Regarding claims 4, 13, 19 and 27, see Powers' Fig 1 (132).

Regarding claims 5 and 14, Powers' teaches the use of Microsoft windows in various forms. See col. 7, lines 1-7.

Regarding claim 7, Powers teaches the use of a network access device (NAD) (36) in connection with PCI bus (30). See col. 4, 35-37.

Regarding claims 8, 16 and 24, Powers teaches a rapid Internet access array (70). Fig 3A.

Regarding claims 9, 18 and 26, see Powers' Fig 1 (16).

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Regarding claims 10, 21 and 29, see Powers' Fig 1 (18).

Regarding claims 17 and 25, Powers teaches the use of windows 95/98 as an operating system. See col. 7, lines 1-3.

Regarding claims 20 and 28, Powers teaches the use of rapid response keys (82, 84, 86, 88). See Fig 4.

Regarding claim 32, Powers teaches the use keys which correspond to responses to routine software requests. See col. Col. 2, 18-22.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I Abdulsalam whose telephone number is (571) 272-7685

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The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas Abdulsalam

Examiner

Art Unit 2674

May 26, 2004


XIAO WU
PRIMARY EXAMINER